



Template for Evidence(s) UI GreenMetric Questionnaire

University : Andijan State Institute of Foreign Languages
Country : Uzbekistan
Web Address : www.adchti.uz

[2] Energy and Climate Change (EC)

[2.11] Please Provide The Total Carbon Footprint (CO₂ emission in the last 12 months, in metric tons)

Option 2: Recommended by UI GreenMetric

CO₂ (electricity)

$$\begin{aligned} &= \frac{\text{electricity usage per year (kWh)}}{1000} \times 0,84 \\ &= \frac{1,633,286 \text{ kWh}}{1000} \times 0,84 \\ &= 1,371.96 \text{ metric tons} \end{aligned}$$

CO₂ (bus)

$$\begin{aligned} &= \frac{\text{number of shuttle bus in your university} \times \text{total trips for shuttle bus service each day} \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,01 \\ &= \frac{12 \times 8 \times 3 \times 160}{100} \times 0,01 \\ &= 4.608 \text{ metric tons} \end{aligned}$$

CO₂ (cars)

$$\begin{aligned} &= \frac{\text{number of cars entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,02 \\ &= \frac{1.500 \times 15 \times 5 \times 100}{100} \times 0,02 \\ &= 2.25 \text{ metric tons} \end{aligned}$$

CO₂ (motorcycle)

$$\begin{aligned} &= \frac{\text{number of motorcycle entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,01 \\ &= \frac{15 \times 6 \times 5 \times 400}{100} \times 0,01 \\ &= 18 \text{ metric tons} \end{aligned}$$

CO₂ (total)

$$\begin{aligned} &= 705,6 + 4,608 + 2,25 + 18 \\ &= 730,458 \text{ metric tons} \end{aligned}$$

Carbon footprint = 730,458 metric tons

Example of Total Carbon Footprint (UI Green Metric)



Description:

Emission Analysis

1. Electricity Emissions

Electricity consumption represents the largest contributor to the university's carbon footprint. This reflects the energy demand of:

- Academic buildings
- Administrative offices
- Student dormitories
- ICT infrastructure
- Lighting and climate control systems

As a modern higher education institution, ASIFL relies heavily on digital platforms, smart classrooms, and ICT-supported learning environments. While this enhances academic quality, it significantly increases electricity-related emissions.

2. Transportation Emissions

Although transportation emissions are relatively lower compared to electricity, they still contribute to the overall footprint:

- University shuttle buses support student and staff mobility.
- Private cars and motorcycles entering campus add to daily emissions.
- Commuting patterns reflect urban mobility challenges typical for growing academic institutions.

The comparatively moderate transportation footprint indicates partial efficiency in mobility systems; however, improvement potential remains.

Institutional Commitment to Sustainable Development Goals (SDGs)

The total carbon footprint data directly aligns with several United Nations Sustainable Development Goals (SDGs):

SDG 7 – Affordable and Clean Energy

ASIFL recognizes the need to transition toward renewable energy solutions such as solar panel installation, energy-efficient lighting (LED systems), and smart energy management technologies.

SDG 11 – Sustainable Cities and Communities

By monitoring transportation emissions and optimizing campus mobility systems, the university contributes to more sustainable urban development within Andijan.

SDG 12 – Responsible Consumption and Production

Energy monitoring, efficiency audits, and rational electricity usage policies support responsible resource management.

SDG 13 – Climate Action

The calculation and reporting of the carbon footprint demonstrate institutional transparency and climate accountability. Measuring emissions is the first step toward systematic reduction strategies.

Climate Action Strategy and Future Directions

To reduce the 730.458 metric tons CO₂ footprint, ASIFL plans to:

- Gradually integrate renewable energy sources
- Improve insulation and energy-efficient infrastructure
- Promote green transportation (cycling, walking, shared mobility)
- Implement digital monitoring systems for real-time energy tracking
- Increase environmental awareness campaigns among students and staff

The difference is that institutions like ASIFL are now actively measuring, reporting, and planning reductions instead of pretending electricity magically appears from nowhere.

The total carbon footprint of 730.458 metric tons CO₂ reflects the operational energy and mobility demands of a developing academic institution. Through structured monitoring and alignment with SDGs 7, 11, 12, and 13, Andijan State Institute of Foreign Languages demonstrates commitment to sustainable campus development and climate responsibility.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

<https://green-institute.adchti.uz/>

<https://green-institute.adchti.uz/#energy>